

MAIL STOP PCT

Attorney Docket: 27097U Date: April 13 , 2006

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Art Unit: Unknown

BAER, et al.

Examiner: Unknown

Appl. No.: 10/562,142

December 23, 2005 Filed:

International Application: PCT/EP2004/051308

International Filing Date: June 30, 2004 For: PYRROLO-DIHYDROISOQUINOLINE DERIVATIVES AS PDE10 INHIBITORS

TRANSMITTAL LETTER

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Submitted herewith for filing in the U.S. Patent and Trademark Sir: Office is the following:

- Information Disclosure Statement;
- PTO Form-1449 with 29 cited References; 1)
- Copies for 25 of the 29 cited References. 2) 3)

The Commissioner is hereby authorized to charge any deficiency or credit any excess to Deposit Account No. 14-0112.

Respectfully submitted, NATH & ASSOCIATES PLLC

M. Nath, Reg. No. 26,965 Sheldon M McGee, Reg. No. 50,454

Customer No. 34375

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GMN/SMM/le



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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

An Information Disclosure Statement is submitted herewith pursuant to 37 C.F.R. 1.97-1.98. Please note the following sir: particulars: [NOTE: One only of items a, b, c, and d must be checked.

- [XXX] a. The enclosed statement is being filed within three months of the filing date of a national application, or within three months of the date of entry into the national stage as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing date of a first Office Action on the merits, whichever event occurs last.
- $\left[\ \right]$ b. The enclosed statement is being filed after a first action on the merits but before the mailing date of a final action under 37 C.F.R. 1.113, or a notice of allowance under 37 C.F.R. 1.311.
 - The enclosed statement is accompanied by [check one]: [] i. a certification in part (e) below as specified
 - [] ii. a check in the amount required by 37 C.F.R.
 - 1.17(p).

MAIL STOP PCT Attorney Docket: 27097U Appl. No.: 10/562,142 page 2

[] c. The enclosed statement is being filed after the mailing date of a final action under 37 C.F.R. 1.113, or a notice of allowance under 37 C.F.R. 1.311, but before payment of the issue fee.
 [] Certification report(e) below; and
 [] a check in the amount as required by 1.17(p).

[] d. The enclosed statement is being filed pursuant to 37 C.F.R. 1.97(i), for placement in the file.

[] e. Certification [Check one] [Certification is required only if box (b)(i) or box (c) is checked.]

[] I hereby certify that each item of information contained in the enclosed Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filling of this statement,

or

I hereby certify that no item of information in the enclosed Information Disclosure Statement herewith was cited in a communication from a foreign patent office in a counterpart foreign application, or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

or

- Appropriate certification is attached.
- [XXX] f. If no check is enclosed and a fee is due in connection with this communication or if the check enclosed is insufficient, the Commissioner is authorized to charge any fee or additional fee due in connection with this communication to Deposit Account No. 14-0112.
 - [XXX] g. Copies of the documents are attached herewith with a completed Form PTO-1449.

MAIL STOP PCT Attorney Docket: 27097U Appl. No.: 10/562,142 Page 3

or

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ight]$ Copies of the documents are not attached as allowed under CFR 1.98(d)(1)(2). The earlier application is identified as:

and / or

[XXX] Copies of US Patents/Publications not attached as allowed in Official Gazette Aug. 5, 2003/ Vol. 1273, no. 1.

The Examiner is respectfully requested to cite the documents listed on the attached Form PTO-1449 in the next In so doing, the Examiner is respectfully requested to initial in the space adjacent to the listing of each document on the Form PTO-1449, and return a copy of the initialed Form PTO-1449 with the next communication to Applicants, to confirm that these documents have been considered by the Examiner and made of record in this application.

If the Examiner has any questions or wishes to discuss this application, kindly telephone the undersigned at the belowlisted number.

Respectfully submitted, NATH & ASSOCIATES PLLC

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aminer	Documen	t Number	Publication Date	Paglion et al.	27 Mar. 1998
nitial	5 96	5.575	12 Oct. 1999	Lebel et al.	19 Apr. 2002
/R.D./ A1	2003/	0008806	9 Jan. 2003	Lebel et al.	3 May 2002 20 Jun. 2002
-/R.D./ A3	2003/	0018047	23 Jan. 2003	Lebel et al.	20 Jun. 2002
/R.D./ A3	2003/	0032579	13 Feb. 2003		
/P.D./ 1 A4	1 20007		FOREIGN PATENT	DOCOPIENTO	Translation
	T		Publication Date	Country	N/A
Examiner Initial	Docume	nt Number	23 Oct. 2002		N/A
/B.D./ A5	1 250) 923 AZ_	10 Dec. 1998	WO	N/A
/R.D./ A6	98/5	5118 A2	10 Dec. 1990 12 Apr. 2001	WO	N/A
A	01/2	4781 A2	20 Jun. 2002	WO	Abstract
/R.D./ A8	3 02/4	18144 A1	3 Jan. 2003	WO	
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Fxaminer Initial	Benow the S	(Inc., rsky, P., synthesis	other cluding Author, Ti- et al., "Aza-A of Non-Benzodi rders", Tetrahe	tie, Date, Pertinent Page unnulation as a Versat azepene Compounds for adron Letters, vol. 3	3, no. 49, pp.
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/R.D./ Examiner Initial /R.D./A	Benov the S of SI 10 8475	(Inc., (I	other characteristics of Non-Benzodi rders", Tetrahe 997).	tle, Date, Pertinent Page innulation as a Versat azepene Compounds for edron Letters, vol. 36 s of Lamellarins I an- to an Alkyne", Synlet	d K by [3+2] t, no. 7, pp.
/R.D./ Examiner Initial /R.D./A	Benove the Store S	(Increase of the control of the cont	other control of the control of Non-Benzodi rders", Tetrahe 997). al., "Synthese of a Nitrone 10001).	tle, Date, Pertinent Page unnulation as a Versat azepene Compounds for edron Letters, vol. 36 s of Lamellarins I and to an Alkyne", Synlet	d K by [3+2] t, no. 7, pp.
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